Appl. No. 10/717,341
Amdt. dated August 31, 2006
Reply to Office Action of June 6, 2006

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application. Added text is indicated by <u>underlining</u>, deleted text is indicated by ~~strikethrough~~. Changes are identified by a change bar in the margin.

Listing of Claims:

1-9.   (canceled)

1   10.   (currently amended) A method of operating a storage system,

2   wherein when a storage system detects that an amount free space of the storage

3   system has become less than a predetermined value, a remote storage area is provided by

4   performing a mount operation on one or more disk units at a remote storage system in

5   communication with said storage system so that said remote storage area serves as said storage

6   area,

7   wherein a size and a speed of at least one of reading and writing of said remote

8   storage area to be utilized are notified from said storage system to said remote storage system,

9   and

10   wherein said remote storage system <u>determines if it is possible to provide said</u>

11   <u>remote storage area in accordance with said size and speed, and if it is possible,</u> provides said

12   remote storage area having said size and said speed as the storage area for said storage system.

1   11.   (currently amended) A method of operating a storage system,

2   wherein when a storage system detects that an amount of its free space has

3   become less than a predetermined value, a remote storage area is provided by performing a

4   mount operation on one or more disk units at a remote storage system in communication with

5   said storage system so that said remote storage area serves as said storage area,

6   wherein a utilization state of said remote storage area for said storage system is

7   monitored in said remote storage system, and

Appl. No. 10/717,341
Amdt. dated August 31, 2006
Reply to Office Action of June 6, 2006

PATENT

8   wherein whether or not one or more spare disk units in said storage system is to

9   be ~~used~~ <u>provided</u> is decided according to said utilization state.

1   12.   (currently amended) A method of operating a storage system,

2   wherein when a storage system detects that an amount of its free space has

3   become less than a predetermined value, a remote storage area is provided by <u>determining if it is</u>

4   <u>possible to provide the remote storage area in accordance with a specification of the storage</u>

5   <u>system and, if it is possible, then</u> performing a mount operation on one or more disk units at a

6   remote storage system in communication with said storage system so that said remote storage

7   area serves as said storage area,

8   wherein data stored and managed in said remote storage area is copied to the

9   storage area of said storage system when the storage area of said storage system is enlarged.

          13-20. (canceled)

1   21.   (currently amended) A method of operating a storage system,

2   wherein when a storage system detects that an amount of free space on at least

3   one first disk unit installed in said storage system has become less than a predetermined value, a

4   remote storage area that is provided by at least one second disk unit installed in a remote storage

5   system in communication with said storage system is made available as said storage area by

6   <u>determining if it is possible to provide said remote storage area in accordance with specifications</u>

7   <u>of the storage system and, if it is possible, then by</u> performing a mounting operation of said at

8   least one second disk unit,

9   wherein said storage system stores a correspondence between:

10   a port ID for specifying each disk unit installed on said storage system,

11   and

12   an identifier of said first disk unit, and

13   wherein, when said storage system uses said remote storage area as its storage

14   area by performing a mounting operation, said storage system stores a correspondence between:

15   said port ID, and

Appl. No. 10/717,341
Amdt. dated August 31, 2006
Reply to Office Action of June 6, 2006

PATENT

16   an identifier of said second disk unit that is provided by said remote storage

17 system area.

1   22.   (new) A method of operating a storage system, the method comprising:

2   receiving a designation command at a remote storage system, wherein the

3 designation command specifies a size and a speed of at least one of reading and writing of a

4 remote storage area of the remote storage system;

5   determining if it is possible for the remote storage system to provide a remote

6 storage area to the storage system in accordance with the designation command specification of

7 size and speed;

8   performing a mount operation on one or more disk units at the remote storage

9 system so that said remote mounted disk units serve as additional storage area for the storage

10 system, in response to determining that it is possible to provide said remote storage area, and

11 otherwise indicating that no mount operation could be performed.

1   23.   (new) A method of operating a storage system according to claim 22,

2 wherein the designation command designates a port ID of the storage system, to which the

3 remote storage area will be mounted.

1   24.   (new) A method of operating a storage system according to claim 22,

2 further comprising:

3   providing a remote unit ID to the storage system, wherein the remote unit ID

4 identifies the remote storage area of the performed mount operation.

1   25.   (new) A method of operating a storage system according to claim 22,

2 wherein the remote unit is automatically mounted in response to detecting that an amount of free

3 space of the storage system has become less than a predetermined value.